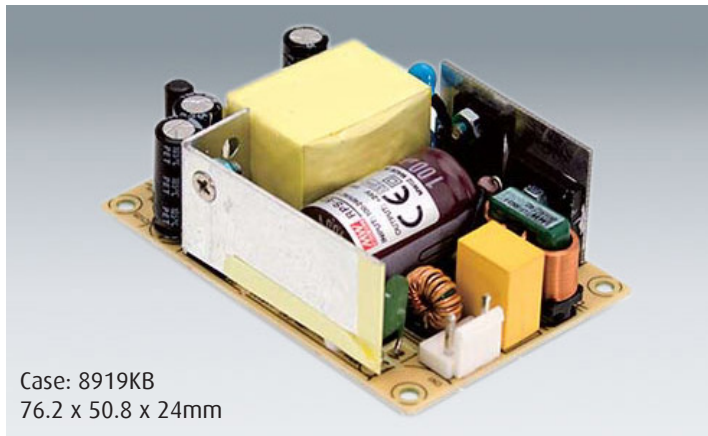


EPS-45S Series

45W Single Output switching Power Supply



Case: 8919KB
76.2 x 50.8 x 24mm

Features

- 3" x 2" miniature size
- Universal AC input / Full range
- Class II (without FG) installations
- No load power consumption <0.1W
- High Efficiency up to 91%
- Protections: Short Circuit / Overload / Over voltage
- Cooling by free air convection
- -30 ~ 70°C wide range of operating temperature
- Operating altitude up to 5000 meters
- LED indicator for power on
- 3 years warranty



Specification

INPUT	Voltage	80 ~ 264VAC						
	Frequency	47 ~ 63 Hz						
	AC Current	1.2A/115VAC 1A/230VAC						
	Inrush Current (Typ.)	Cold start 30A/115VAC 60A/230VAC						
	Leakage Current	<0.25mA/264VAC						
OUTPUT	MODEL No.	EPS-45S-3.3	EPS-45S-5	EPS-45S-7.5	EPS-45S-12	EPS-45S-15	EPS-45S-24	EPS-45S-48
	DC Voltage	3.3V	5V	7.5V	12V	15V	24V	48V
	Rated Current	8A	8A	5.4A	3.8A	3A	1.9A	0.94A
	Current Range	0 ~ 8.8A	0 ~ 8.8A	0 ~ 5.95A	0 ~ 4.18A	0 ~ 3.3A	0 ~ 2.1A	0 ~ 1.03A
	Rated Power	26.4W	40W	40.5W	45.6W	45W	45.6W	45.1W
	Peak Load (10 sec.)	29W	44W	44.6W	50.2W	49.5W	50.2W	49.4W
	R&N	80mVp-p	80mVp-p	80mVp-p	120mVp-p	150mVp-p	240mVp-p	300mVp-p
	Efficiency	80%	83%	85%	88%	89%	90%	91%
	Voltage Adjustment Range	3.1 ~ 3.6V	4.7 ~ 5.5V	7.2 ~ 8.3V	11.4 ~ 13.2V	13.5 ~ 16.5V	22.8 ~ 27.6V	45.6 ~ 52.8V
	Voltage Tolerance	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%
	Line Regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load Regulation	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%
	Setup Rise Time	500ms, 30ms/230VAC 500ms, 30ms/115 at full load						
	Hold Up Time	30ms/230VAC 12ms/115VAC at full load						
	PROTECTION	Over Load	115 ~ 150% rated output power Hiccup mode, recovers automatically after fault condition is removed					
Over Voltage		3.8~5V 5.7~6.8V 8.62~11.3V 13.8~16.2V 17.25~20.3V 28.4~32.4V 55.2~64.8V Shut down output voltage, re-power on to recover						
ENVIRONMENT	Working Temperature	Tcase = -30 ~ +70°C (Please refer to 'Derating Curve' section)						
	Working Humidity	20 ~ 90% RH non-condensing						
	Storage Temp., Humidity	-40 ~ +85 °C, 10 ~ 95% RH						
	Temp Coefficient	±0.03%/°C (0 ~ 50°C)						
	Operating Altitude	5000 metres						
SAFETY & EMC	Vibration	10 ~ 500Hz, 2G 10 min./1cycle, period for 60 min. each along X, Y, Z axes						
	Safety Standards	UL60950-1 TUV EN60950-1 approved						
	Isolation Level	Primary-Secondary: 2 x MOPP						
	Withstand Voltage	I/P-O/P:3KVAC						
	Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH						
	EMC Emission	Compliance to EN55032(CISPR32) Class B, EN61000-3-2,3						
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, Heavy industry Level criteria A						
OTHERS	M.T.B.F.	726.2K hrs min. MIL-HDBK-217F (25°C)						
	Packing	0.11Kg; 120pcs/14.2Kg/0.97CUFT						

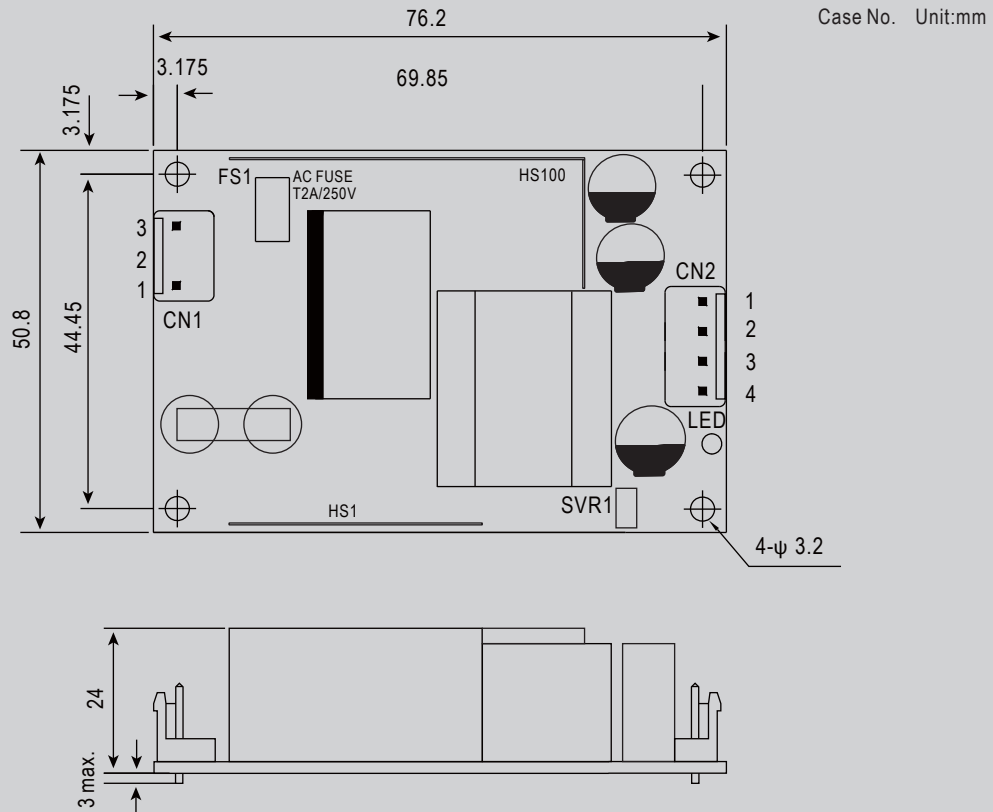
1. All parameters NOT specially mentioned are measured at 347VAC input, rated load and 25°C of ambient temperature.
2. 33% duty cycle maximum within every 30 seconds. Average output power should not exceed the output power.
3. 33% duty cycle maximum within every 30 seconds. Average output power should not exceed the output power.
4. Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with 0.1uF & 2.2uF parallel capacitor.
5. Tolerance: includes set up tolerance, line regulation and load regulation.
6. Touch current was measured from primary input to DC output.
7. Derating may be needed under low input voltages. Please check the static characteristics for more details.
8. The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m (6500ft)
9. The power supply is considered as a component which will be installed into final equipment. All the EMC tests are being executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to 'EMI testing of component power supplies.'

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Mechanical Diagram



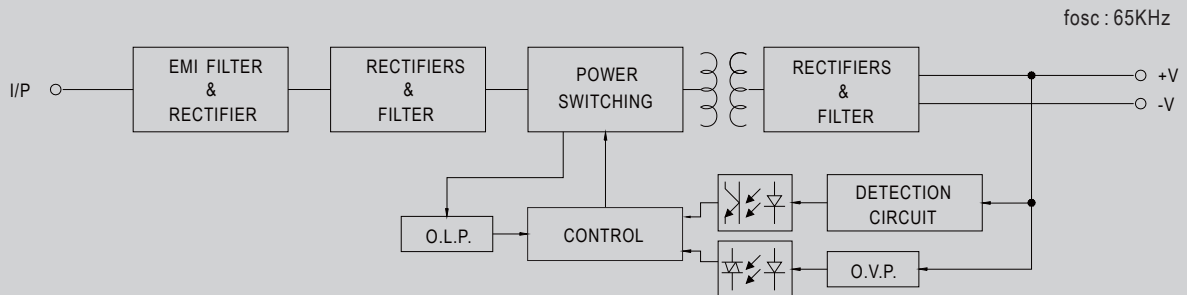
AC Input Connector (CN1) : JST B3P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

DC Output Connector (CN2) : JST B2P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	+V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	+V		
3	-V		
4	-V		

Block Diagram

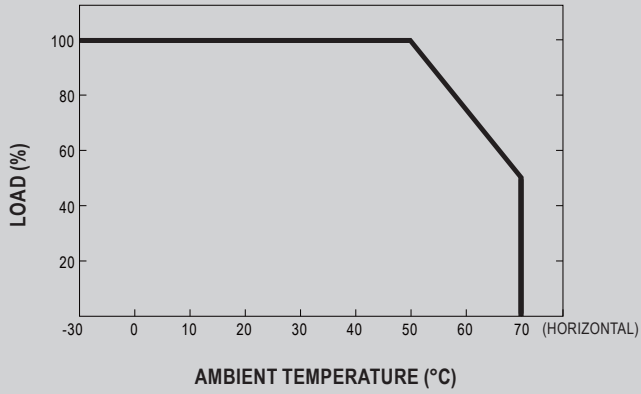


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Output Derating



Static Characteristics

